WORKSHEET W-2 2002

WATER RIGHT/PERMIT NO. ______________

1 DWR WELL REGISTRATION NO.

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2 TYPE OF MEASURING DEVICE | MAKE/MODEL

SIZE | INSTALLATION OR OVERHAUL DATE

3 POWER CO. NAME | ACCOUNT NO. | ELECTRIC METER NO.

4 Kr | Kh

5 FACTOR A = ______ = Kr x Kh

6 INSIDE DIAMETER ______ (inches)

7

Date of Measurement	Differential or Velocity Head (Specify Units)	Discharge (Gals/Min)	No. of Seconds for 10 Revs
A MINIMUM OF TWO MEASURE - MENTS IS REQUIRED	TOTALS		

8 AVERAGE DISCHARGE ______ FACTOR B

9 AVERAGE SECONDS ______ FACTOR C

10 DIVIDER = 19550 X $\frac{A \times 10}{B \times C}$ = ______

11 ENERGY CONSUMPTION FOR THE YEAR IN Kw HOURS ______

12 WATER WITHDRAWN = $\frac{\text{Box } 11}{\text{Box } 10}$ = ______ ACRE FEET

1 DWR WELL REGISTRATION NO.

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2 TYPE OF MEASURING DEVICE | MAKE/MODEL

SIZE | INSTALLATION OR OVERHAUL DATE

3 POWER CO. NAME | ACCOUNT NO. | ELECTRIC METER NO.

4 Kr | Kh

5 FACTOR A = ______ = Kr x Kh

6 INSIDE DIAMETER ______ (inches)

7

Date of Measurement	Differential or Velocity Head (Specify Units)	Discharge (Gals/Min)	No. of Seconds for 10 Revs
A MINIMUM OF TWO MEASURE - MENTS IS REQUIRED	TOTALS		

8 AVERAGE DISCHARGE ______ FACTOR B

9 AVERAGE SECONDS ______ FACTOR C

10 DIVIDER = 19550 X $\frac{A \times 10}{B \times C}$ = ______

11 ENERGY CONSUMPTION FOR THE YEAR IN Kw HOURS ______

12 WATER WITHDRAWN = $\frac{\text{Box } 11}{\text{Box } 10}$ = ______ ACRE FEET

1 DWR WELL REGISTRATION NO.

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2 TYPE OF MEASURING DEVICE | MAKE/MODEL

SIZE | INSTALLATION OR OVERHAUL DATE

3 POWER CO. NAME | ACCOUNT NO. | ELECTRIC METER NO.

4 Kr | Kh

5 FACTOR A = ______ = Kr x Kh

6 INSIDE DIAMETER ______ (inches)

7

Date of Measurement	Differential or Velocity Head (Specify Units)	Discharge (Gals/Min)	No. of Seconds for 10 Revs
A MINIMUM OF TWO MEASURE - MENTS IS REQUIRED	TOTALS		

8 AVERAGE DISCHARGE ______ FACTOR B

9 AVERAGE SECONDS ______ FACTOR C

10 DIVIDER = 19550 X $\frac{A \times 10}{B \times C}$ = ______

11 ENERGY CONSUMPTION FOR THE YEAR IN Kw HOURS ______

12 WATER WITHDRAWN = $\frac{\text{Box } 11}{\text{Box } 10}$ = ______ ACRE FEET

1 DWR WELL REGISTRATION NO.

10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2 TYPE OF MEASURING DEVICE | MAKE/MODEL

SIZE | INSTALLATION OR OVERHAUL DATE

3 POWER CO. NAME | ACCOUNT NO. | ELECTRIC METER NO.

4 Kr | Kh

5 FACTOR A = ______ = Kr x Kh

6 INSIDE DIAMETER ______ (inches)

7

Date of Measurement	Differential or Velocity Head (Specify Units)	Discharge (Gals/Min)	No. of Seconds for 10 Revs
A MINIMUM OF TWO MEASURE - MENTS IS REQUIRED	TOTALS		

8 AVERAGE DISCHARGE ______ FACTOR B

9 AVERAGE SECONDS ______ FACTOR C

10 DIVIDER = 19550 X $\frac{A \times 10}{B \times C}$ = ______

11 ENERGY CONSUMPTION FOR THE YEAR IN Kw HOURS ______

12 WATER WITHDRAWN = $\frac{\text{Box } 11}{\text{Box } 10}$ = ______ ACRE FEET

WORKSHEET W-2

ARIZONA DEPARTMENT OF WATER RESOURCES

NOTE: 1) This method cannot be used when energy meter serves other uses.
2) If you are using one of the new digital power meters, call your local AMA office for further instructions.

PIPE FLOW
WITH PUMPAGE CALCULATED USING ELECTRICAL ENERGY RECORDS

INSTRUCTIONS

Note: If any information pre-printed on this form is incorrect, please make the needed corrections.
For that information not already preprinted on this form, please follow the directions below.

1. Enter DWR well registration number and location in [1].
2. If the meter has been changed during the reporting year, enter type, make, model and size of measuring device used to measure discharge in [2]. If the device is permanent, enter date installed or last overhauled.
3. Enter power company name, account number and meter number in [3].
4. Enter Kr and Kh from electric meter in [4]. The Kr is the multiplier factor indicated on the power bill.
   For some pump motors, which are 200 amps or less, the electric meter may be "self-contained" and the Kr is not used in computing Factor A (Kh=Factor A). Contact the metering department of your electric company to determine if your electric meter is self-contained, if you are not sure. Kh is the disk constant and is located on the faceplate of the electric meter.
5. Compute Factor A by multiplying Kr by Kh in [5].
6. Enter the inside diameter of the well discharge pipe (inches) in [6].
7. Enter date of measurement, differential or velocity head of the pipe flow, pump discharge, and the number of seconds it takes to turn the electric meter disk 10 revolutions, for each measurement taken. A minimum of two measurements are required. These measurements should be taken during the spring and in late summer if possible. Measuring more often produces more accurate results. It is desirable to operate the pump at least 24 hours before measuring the discharge. Enter in [7].
8. Add the values in the discharge column and divide by the number of entries to obtain the average discharge which is designated as Factor B. Enter in [8].
9. Repeat the same procedure for the number of seconds column to obtain the average seconds which is designated as Factor C. Enter in [9].
10. Enter Factor A, Factor B, and Factor C in the formula provided. Complete the calculation as shown to obtain the divider. Enter in [10].
11. Enter the total energy consumption. This amount may be obtained from your electric energy bills. If you obtain this information by reading your meter, be sure to adjust the reading by the "multiplier" factor on your bill. Enter in [11].
12. Divide the total energy consumption entered in [11] by the value computed in [10] to obtain the total water withdrawn by the well. Enter in [12].

ENTER THE FOLLOWING ON SCHEDULE A OR PART 1 OF SCHEDULE A-GSF

WORKSHEET W-2		SCHEDULE A
Box [1]	---	DWR well registration number & location in column [2] if not already shown.
Box [3]	---	Power company name, Account number and Meter number in column [3].
Box [8]	---	Average discharge in column [7].
Box [10]	---	Divider in column [8].
Box [11]	---	Energy consumption in column [6].
Box [12]	---	Water withdrawn in column [9].

NOTE: THIS WORKSHEET MUST BE SUBMITTED WITH SCHEDULE A OR A-GSF.